(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 16 June 2005 (16.06.2005)

PCT

(10) International Publication Number WO 2005/053691 A3

- (51) International Patent Classification7: A61K 31/465, 47/48, 47/10
- (21) International Application Number:

PCT/DK2004/000841

- (22) International Filing Date: 2 December 2004 (02.12.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: PA200301782

60/509,063

2 December 2003 (02.12.2003)

5 December 2003 (05.12.2003)

- (71) Applicant (for all designated States except US): FERTIN PHARMA A/S [DK/DK]; Industrivej 8, DK-7120 Vejle Øst (DK).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): ANDERSEN, Carsten [DK/DK]; Pedersholms Allé 61, DK-7100 Vejle (DK).
- (74) Agent: ZACCO DENMARK A/S; Hans Bekkevolds Allé 7, DK-2900 Hellerup (DK).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 14 July 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NICOTINE DELIVERY PRODUCT AND METHOD FOR PRODUCING IT

(57) Abstract: A nicotine delivery product comprising the reaction product of a nicotine/cation exchange resin complex and an organic polyol; and a method for preparing it comprising (a) mixing an aqueous suspension of a nicotine/cation exchange resin complex with an organic polyol or an aqueous solution thereof, and (b) removing water from the mixture to produce said nicotine delivery product. The nicotine delivery product has a nicotine release rate of at least 80 % over a 10 minute period. It is particularly suited for use in smoking substitution devices delivering nicotine such as chewing gum, patches, lozenges, melting tablets and tablets for chewing.

